

SCHEMATIC REPRESENTATION OF THE PHAGEMID VECTOR pCES1

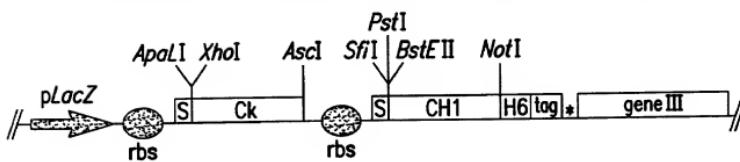


FIG. 1A

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POLYLINKER REGION OF THE PHAGEMID VECTOR pCES1

Signal sequence ApaI 1+ XbaI  
... TTA TTC GCA ATT CCT TTA GTT CCT TTC TAT TCT CAC AGT GCA CAG GTC CAA CTG CAG GTC GAC CTC GAG  
L F A I P L V V P F Y S H S A Q V Q L Q V D L E

ATC AAA CGT GGA ACT GTG ... GGA GAG TAA TGT TAA GGC GGG CCA ATT CTA TTT CAA GGA GAC AGT CAT A  
I K R G T V G E C \* \*  
Human Cx gene  
Stops

Signal sequence Sfi I +1  
ATG AAA TAC CTA TTG CCT ACG GCA GCC GCT GGA TTG TTA CTC GCG GCC CAG CGG GCC ATG GCC CAG GTG  
M K Y L L P T A A G L L L A A Q P A M A Q V

Pst I BstEII  
CAG CTG CAG GAG AGC GGG GTC ACC GTC TCA AGC GCC TCC ACC ... AAA TCT TGT GCG GCC GGA CAT CAT CAT  
Q L Q E S G V T V S S A S T K S C A A A H H H  
Human CH1 (y1) gene  
Hexahistidine

Tag c-Myc Tag

CAT CAC GGG GCC GCA GAA CAA AAA CTC ATC TCA GAA GAG GAT CTG AAT GGG GCC GCA TAG ACT GTT ...  
H H G A A E Q K L I S E E D L N G A A \* T V  
Tag

FIG. 1B

## Oligonucleotide primers used for construction of the library

### A. Primary amplifications

IgM heavy chain constant region  
HulgMFOR 5'-TGG AAG AGG CAC GTT CTT TTC TTT-3'

$\kappa$  light chain constant region  
HUCKFOR 5'-ACA CTC TCC CCT GTT GAA GCT CTT-3'

$\lambda$  light chain constant region  
HuCl2-FOR 5'-TGA ACA TTC TGT AGG GGC CAC TG-3'  
HuCl7-FOR 5'-AGA GCA TTC TGC AGG GGC CAC TG-3'

VH back	
HuVH1B7A-BACK	5'-CAG RTG CAG CTG GTG CAR TCT GG-3'
HuVH1C-BACK	5'-SAG GTC CAG CTG GTR CAG TCT GG-3'
HuVH2B-BACK	5'-CAG RTC ACC TTG AAG GAG TCT GG-3'
HuVH3B-BACK	5'-SAG GTG CAG CTG GTG GAG TCT GG-3'
HuVH3C-BACK	5'-GAG GTG CAG CTG GTG GAG WCY GG-3'
HuVH4B-BACK	5'-CAG GTG CAG CTA CAG CAG TGG GG-3'
HuVH4C-BACK	5'-CAG STG CAG CTG CAG GAG TCS GG-3'
HuVH5B-BACK	5'-GAR GTG CAG CTG GTG CAG TCT GG-3'
HuVH6A-BACK	5'-CAG GTA CAG CTG CAG CAG TCA GG-3'

### B. Secondary amplifications

$\kappa$  light chain constant region  
HuCk-FOR-ASC

$\lambda$  light chain constant region  
HuCl2-FOR-ASC  
HuCl7-FOR-ASC

VH back	
HuVH1B7A-BACK	HuVH1B7A-BACK-SFI
HuVH1C-BACK	HuVH1C-BACK-SFI
HuVH2B-BACK	HuVH2B-BACK-SFI
HuVH3B-BACK	HuVH3B-BACK-SFI
HuVH3C-BACK	HuVH3C-BACK-SFI
HuVH4B-BACK	HuVH4B-BACK-SFI
HuVH4C-BACK	HuVH4C-BACK-SFI
HuVH5B-BACK	HuVH5B-BACK-SFI
HuVH6A-BACK	HuVH6A-BACK-SFI

FIG.2i

Oligonucleotide primers used for construction of the library

VH forward	HuJH1-FOR	Vk back	HuVK1B-BACK
	HuJH2-FOR		HuVK2-BACK
	HuJH3-FOR		HuVK3B-BACK
	HuJH4-FOR		HuVK4B-BACK
	HuJH6-FOR		HuVK6-BACK
			HuVK8-BACK

FIG. 2

Oligonucleotide primers used for construction of the library

	Vλ back	
HuVλ.1A-BACK	5'-CAG TCT GTG CTG ACT CAG CCA CC-3'	HuVλ.1A-BACK-APA
HuVλ.1B-BACK	5'-CAG TCT GTG YTG ACG CAG CCG CC-3'	HuVλ.1B-BACK-APA
HuVλ.1C-BACK	5'-CAG TCT GTC GTG ACG CAG CCG CC-3'	HuVλ.1C-BACK-APA
HuVλ.2-BACK	5'-CAR TCT GCC CTG ACT CAG CCT-3'	HuVλ.2-BACK-APA
HuVλ.3A-BACK	5'-TCC TAT GWG CTG ACT CAG CCA CC-3'	HuVλ.3A-BACK-APA
HuVλ.3B-BACK	5'-TCT TCT GAG CTG ACT CAG GAC CC-3'	HuVλ.3B-BACK-APA
HuVλ.4-BACK	5'-CAC GTT ATA CTG ACT CAA CCG CC-3'	HuVλ.4-BACK-APA
HuVλ.5-BACK	5'-CAG GCT GTG CTG ACT CAG CCG TC-3'	HuVλ.5-BACK-APA
HuVλ.6-BACK	5'-AAT TTT ATG CTG ACT CAG CCC CA-3'	HuVλ.6-BACK-APA
HuVλ.7/8-BACK	5'-CAG RCT GTG GTG ACY CAG GAG CC-3'	HuVλ.7/8-BACK-APA
HuVλ.9-BACK	5'-CAG CCT GTG CTG ACT CAG CCM CC-3'	HuVλ.9-BACK-APA

FIG.2iii

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## Oligonucleotide primers used for construction of the library

5'-ACC GCC TCC ACC GGG CGC GCC TTA TTA ACA CTC TCC CCT GTT GAA GCT CTT-3'

5'-ACC GCC TCC ACC GGG CGC GCC TTA TTA ACA TTC TGT AGG GGC CAC TG-3'

5'-ACC GCC TCC ACC GGG CGC GCC TTA TTA AGA GCA TTC TGC AGG GGC CAC TG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC CAG RTG CAG CTG GTG CAR TCT GG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC CAG SAG GTC CAG CTG GTR CAG TCT GG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC CAG RTG CAG CTG GTR ACC TTG AAG GAG TCT GG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC SAG GTG CAG CTG GTG GAG TCT GG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC GAG GTG CAG CTG GTG GAG WCY GG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC CAG GTG CAG CTA CAG TGG GG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC CAG GTG CAG CTA CAG CAG TGG GG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC CAG STG CAG CTG CAG GAG TCS GG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC GAG GTG CAG CTG GTG CAG TCT GG-3'

5'-GTC CTC GCA ACT GCG GCC CAG CCG CCG ATG GCC GAG GTG CAG CTG CAG TCA GG-3'

FIG.2iv

Oligonucleotide primers used for construction of the library

5'-TGA GGA GAC GGT GAC CAG GGT GCC-3'

5'-TGA AGA GAC GGT GAC CAT TGT CCC-3'

5'-TGA GGA GAC GGT GAC CAG GGT TCC-3'

5'-TGA GGA GAC GGT GAC CGT GGT CCC-3'

5'-ACC GCC TCC ACC AGT GCA CTT GAC CAG WTG ACC CAG CAG TCT CC-3'

5'-ACC GCC TCC ACC AGT GCA CTT GAT GTT GTG ATG ACT CAG TGT CC-3'

5'-ACC GCC TCC ACC AGT GCA CTT GAA ATT GTG WTG ACR CAG TCT CC-3'

5'-ACC GCC TCC ACC AGT GCA CTT GAT ATT GTG ATG ACC CAC ACT CC-3'

5'-ACC GCC TCC ACC AGT GCA CTT GAA ACG ACA CTC ACG CAG TCT CC-3'

5'-ACC GCC TCC ACC AGT GCA CTT GAA ATT GTG CTG ACT CAG TCT CC-3'

FIG.2v

Oligonucleotide primers used for construction of the library

5'-ACC GCC TCC ACC AGT GCA CAG TCT GTG CTG ACT CAG CCA CC-3'  
5'-ACC GCC TCC ACC AGT GCA CAG TCT GTG YTG ACG CAG CCG CC-3'  
5'-ACC GCC TCC ACC AGT GCA CAG TCT GTC GTG ACG CAG CCG CC-3'  
5'-ACC GCC TCC ACC AGT GCA CAR TCT GCC CTG ACT CAG CCT-3'  
5'-ACC GCC TCC ACC AGT GCA CTT TCC TAT GWG CTG ACT CAG CCA CC-3'  
5'-ACC GCC TCC ACC AGT GCA CTT TCT TCT GAG CTG ACT CAG GAC CC-3'  
5'-ACC GCC TCC ACC AGT GCA CAC GTT ATA CTG ACT CAA CCG CC-3'  
5'-ACC GCC TCC ACC AGT GCA CAG GCT GTG CTG ACT CAG CCG TC-3'  
5'-ACC GCC TCC ACC AGT GCA CTT AAT TTT ATG CTG ACT CAG CCC CA-3'  
5'-ACC GCC TCC ACC AGT GCA CAG RCT GTG GTG ACY CAG GAG CC-3'  
5'-ACC GCC TCC ACC AGT GCA CAG CAG CCT GTG ACT CAG CCM CC-3'

FIG.2vi